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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,382	03/11/2004	Wing Yu Leung	MST-1898-22D	8847

22888 7590 11/07/2006

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EXAMINER
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TORRES, JOSEPH D

ART UNIT	PAPER NUMBER
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2133

DATE MAILED: 11/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/800,382

Applicant(s)

LEUNG ET AL.

Examiner

Joseph D. Torres

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 08/02/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

1. The abstract of the disclosure is objected to because the abstract exceeds 150 words. Correction is required. See MPEP § 608.01(b).

### ***Claim Objections***

2. Claim 1 is objected to because of the following informalities: the limitation "defining for each byte of packet have an EDC code portion and a data portion" is not clearly written in grammatically correct idiomatic English.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation "defining for each byte of packet have an EDC code portion and a data portion" is not clearly written in grammatically correct idiomatic English.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Ragle; Herbert U. (US 4052698 A).

35 U.S.C. 102(b) rejection of claim 1.

Ragle teaches defining for each byte of packet have an EDC code portion and a data portion (Word Assembler 106 and Parity & Check Character Generator 108 in Figure 1 of Ragle teaches defining for each byte D1 to D7 of a 7 character packet, an EDC code portion and a data portion); reading out said data from said memory module (Read Heads 116 in Figure 116 of Ragle); forwarding said data portion to said requesting device (Interface 104 in Figure 1 of Ragle forwards data 7 character data word packets

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to computer 100); storing said EDC portion (Magnetic Tape 102 in Figures 1 of Ragle stores the record group including the EDC portion) and sending said EDC portion to an EDC functional block when a complete EDC code is obtained (Decoder 122 receives the complete data word EDC code packet before sending the data word EDC code packet to the EDC Error Check functional block Unit comprising units 302, 304, 306, 308, 310 and 318 in Figure 1 and 7 of Ragle); copying said data and sending said data to said EDC functional block (Buffer 300 in Figure 7 of Ragle keeps a copy of the data read off of Magnetic Tape 102 and 3 copies of the data word EDC code packet are sent to the Error Pattern Generator 302, Parity Check Generator 304 and Error Correction functional block Unit 306 in the EDC Error Check functional block Unit comprising units 302, 304, 306, 308, 310 and 318 in Figure 1 and 7 of Ragle); and performing error checking and correction in said EDC functional block when said EDC functional block receives a complete EDC code (EDC Error Check functional block Unit comprising units 302, 304, 306, 308, 310 and 318 in Figure 1 and 7 of Ragle performs error checking and correction in said EDC functional block when said EDC functional block receives a complete EDC code).

35 U.S.C. 102(b) rejection of claim 4.

Figure 1 teaches that the complete data word packet is sent after error detection and correction is completed.

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ragle; Herbert U. (US 4052698 A) in view of Brune; Werner et al. (US 3665393 A, hereafter referred to as Brune).

35 U.S.C. 103(a) rejection of claim 2.

Ragle substantially teaches the claimed invention described in claim 1 (as rejected above).

However Ragle does not explicitly teach the specific use of setting a flag and correcting said data; writing the correct data back to said memory module; and generating an interrupt to said requesting device for a later retransmission.

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Brune, in an analogous art, teaches use of setting a flag (col. 4, lines 45 in Brune teach that Error Recognition Device 6 produces an output for flagging errors if an error is detected) and correcting said data (see Abstract in Brune); writing the correct data back to said memory module (col. 2 , lines 53-58 in Brune); and generating an interrupt to said requesting device for a later retransmission (col. 2 , lines 53-58 in Brune).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ragle with the teachings of Brune by including use of setting a flag and correcting said data; writing the correct data back to said memory module; and generating an interrupt to said requesting device for a later retransmission. This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that use of setting a flag and correcting said data; writing the correct data back to said memory module; and generating an interrupt to said requesting device for a later retransmission would have provided avoided cycle prolongation (col. 2, lines 60-61 in Brune).

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ragle; Herbert U. (US 4052698 A).

35 U.S.C. 103(a) rejection of claim 3.

Ragle substantially teaches the claimed invention described in claim 1 (as rejected above).

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However Ragle does not explicitly teach the same size of Data Structure in claim 3.

The Examiner asserts that one of ordinary skill in the art at the time the invention was made would have known that error correction redundancy can be modified by reducing redundancy to increase bandwidth or increasing redundancy to provide more robust error correction. Ragle teaches all of the limitations of claim 1 for error correction and modifying the data structure in Ragle based on well known motivation in the art is obvious.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Ragle by including using the same size of Data Structure in claim 3. This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that using the same size of Data Structure in claim 3 would have provided increased bandwidth.

### ***Conclusion***

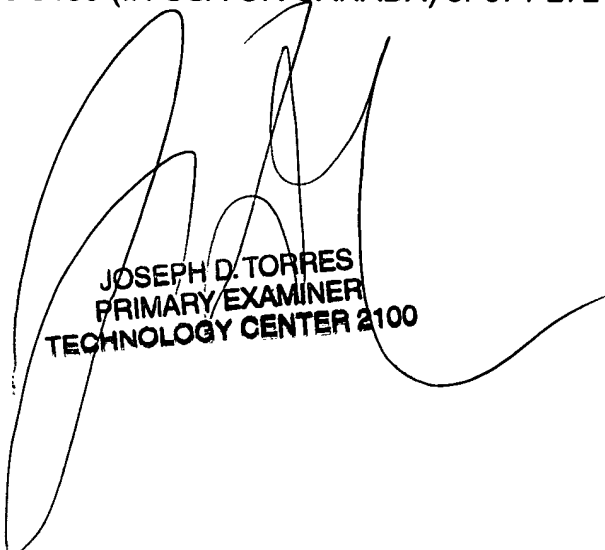
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (571) 272-3829. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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